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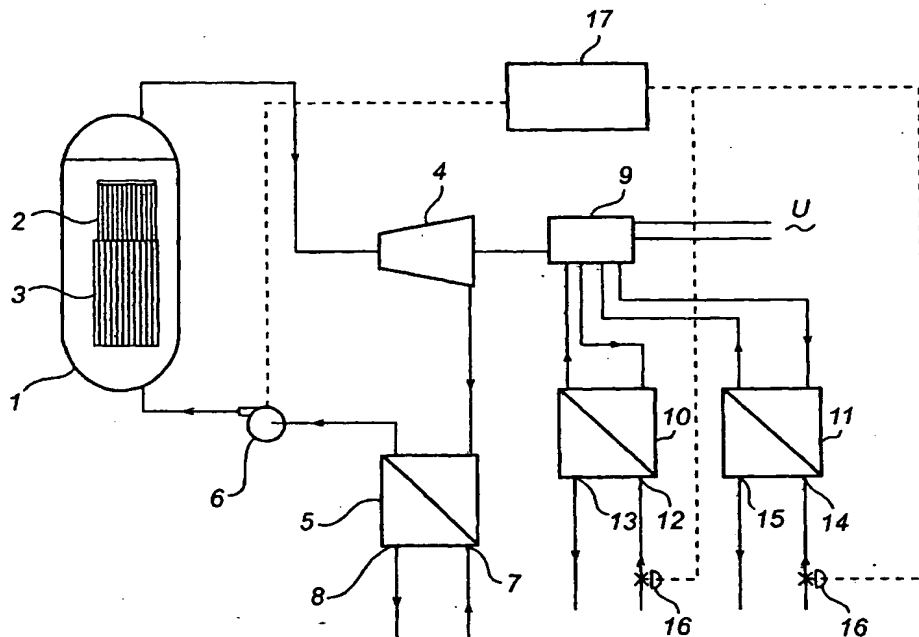
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(54) Title: **ELECTRIC MACHINE**



(57) Abstract: A method and an apparatus are described for monitoring a rotating synchronous electric machine (9), which comprises a rotor having a rotor winding and a stator having a stator winding. The method comprises the steps of determining the stator winding current, determining the stator winding voltage, determining the rotor winding current, and estimating the temperature in at least two positions in the electric machine (9) using a model of the electric machine and the determined current and voltage values. An apparatus according to the invention is provided for carrying out the method.